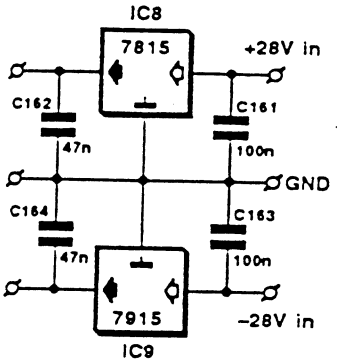
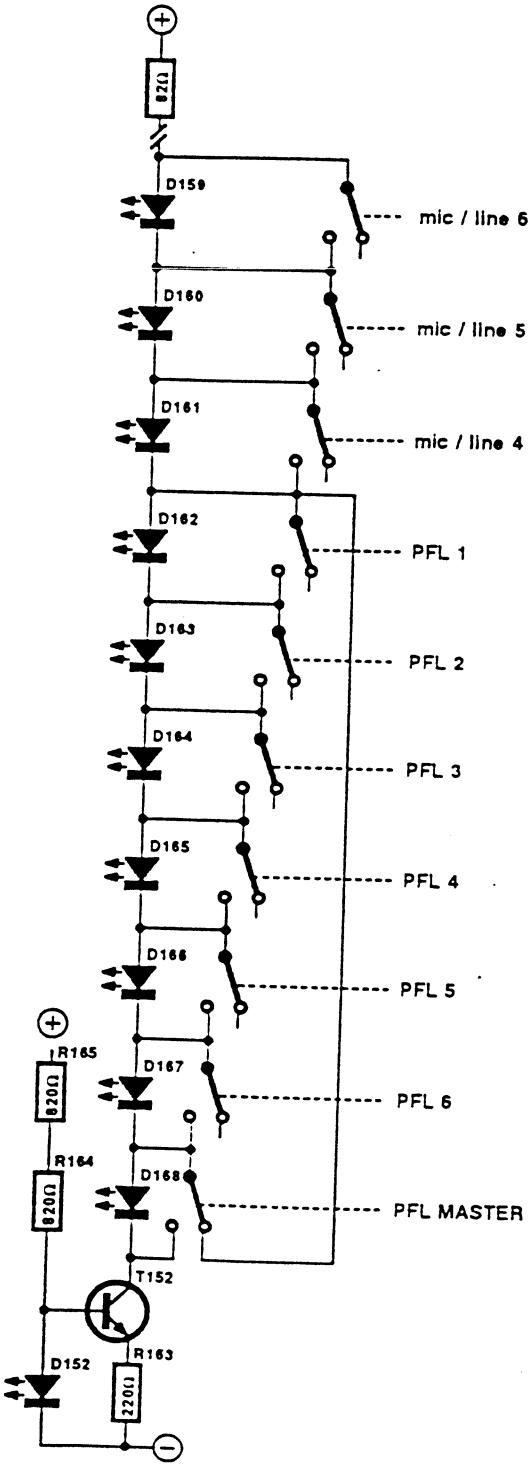
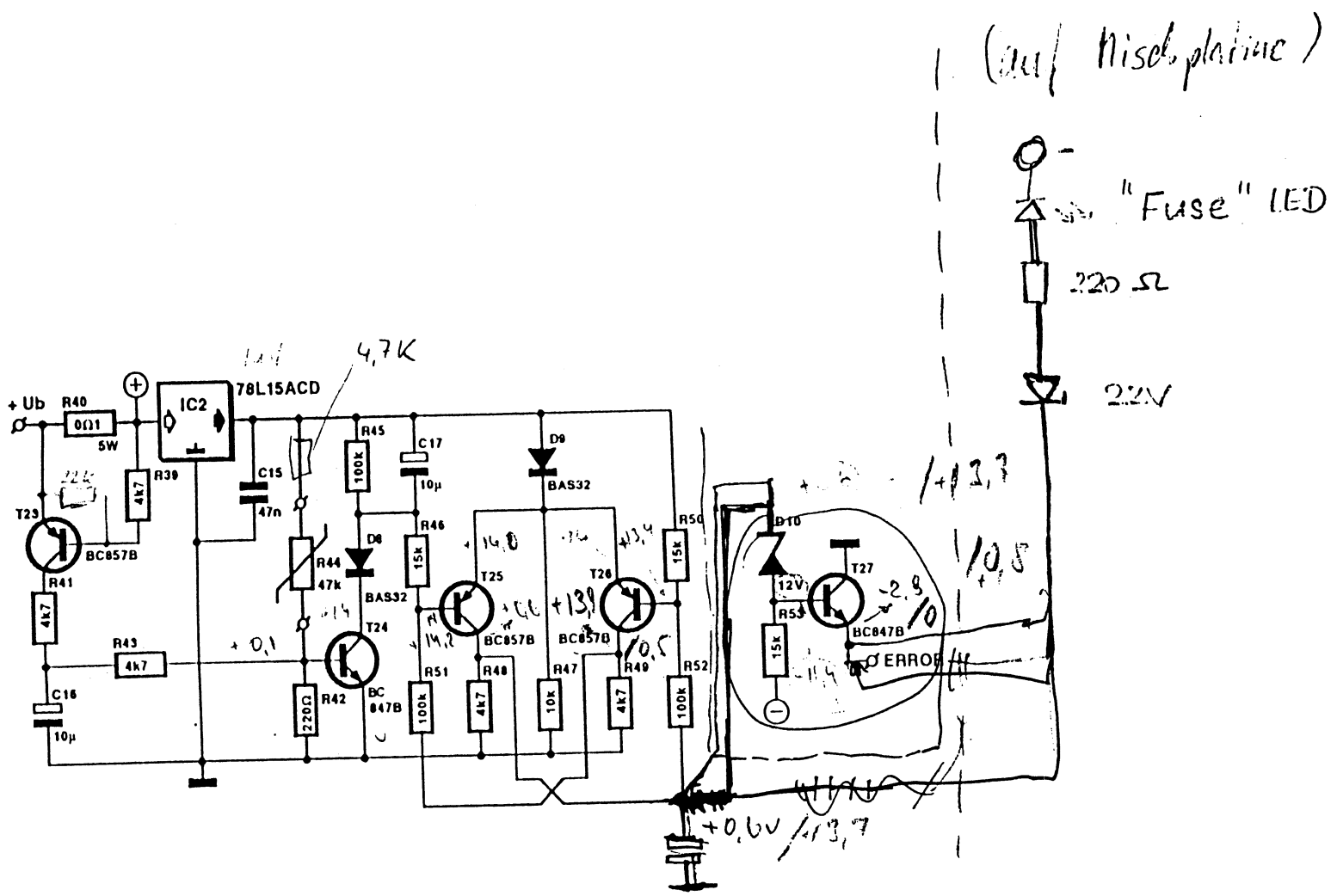
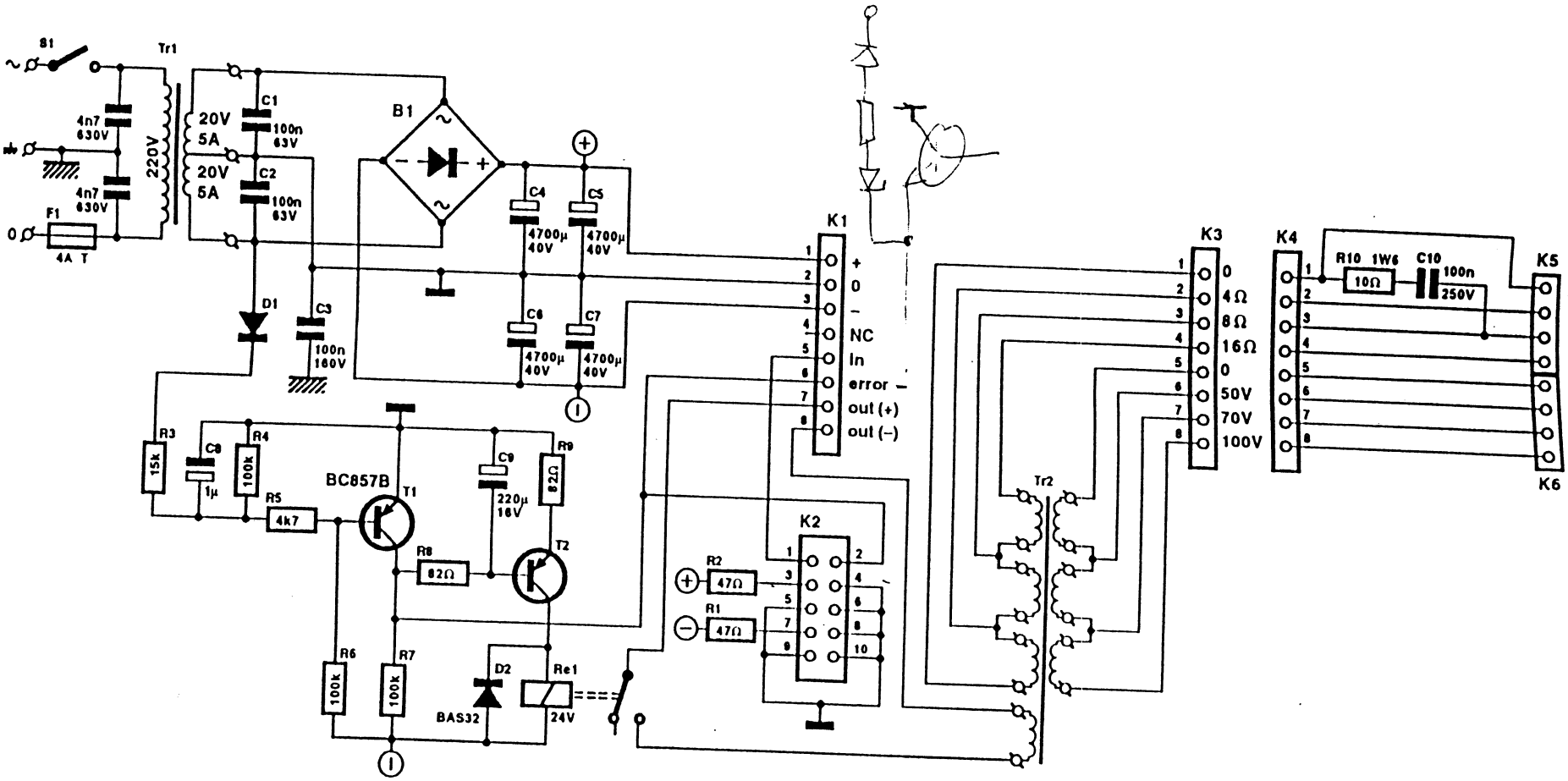
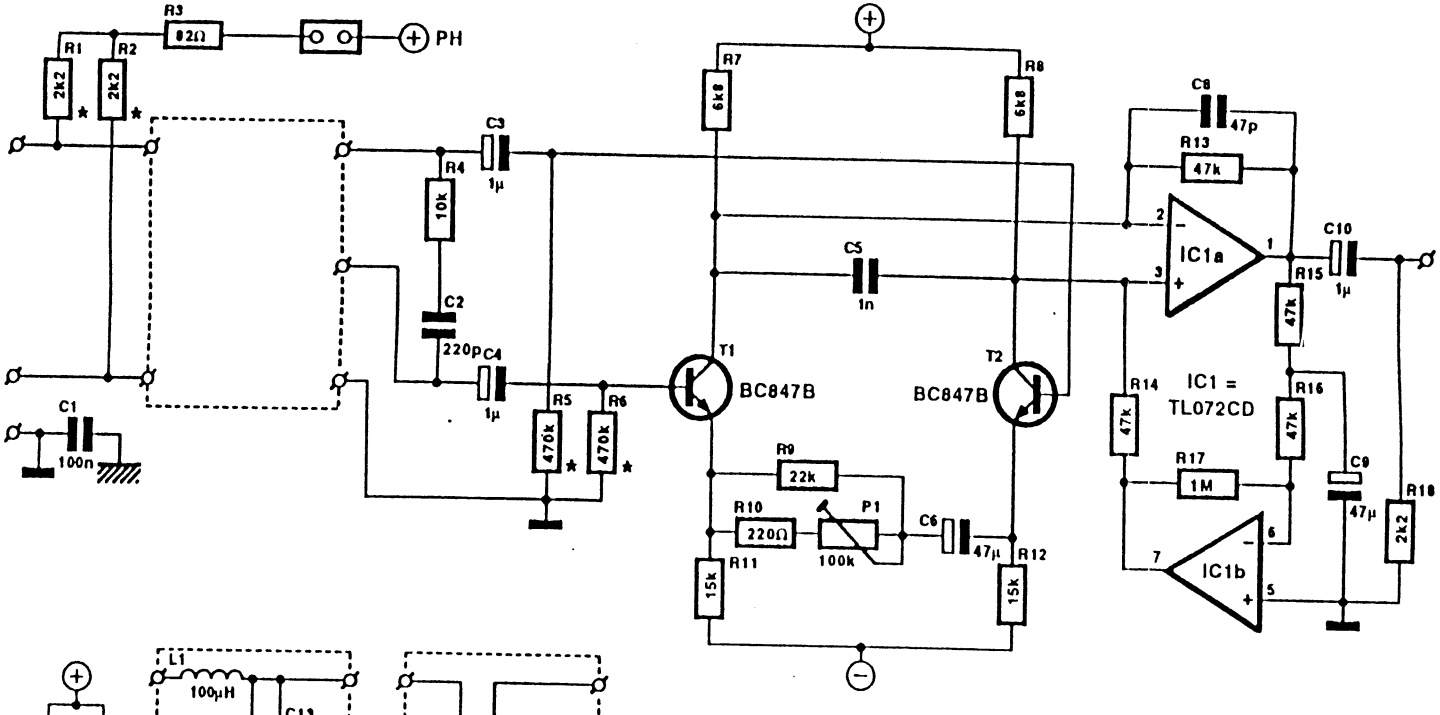
Quadral AMP 4/20

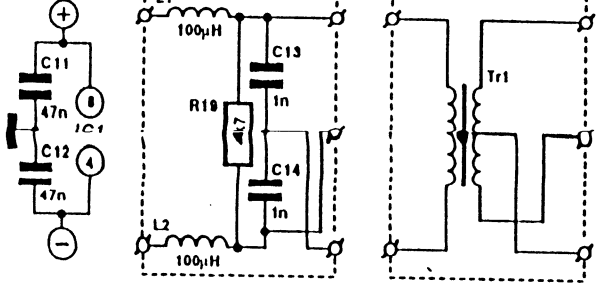





(au/ Niob. platine)
"Fuse" LED
220 Ω
2,2V
+ Ub
R40
0Ω1
5W
IC2
78L15ACD
4,7K
R39
4k7
C15
47n
C17
10µ
D9
BAS32
R45
100k
R46
15k
R50
15k
T23
BC857B
R41
4k7
R43
4k7
C16
10µ
R44
47k
D8
BAS32
T24
BC
847B
R42
220Ω
T25
BC857B
T26
BC857B
R51
100k
R48
4k7
R47
10k
R49
4k7
R52
100k
D10
12V
T27
R53
15k
BC847B
ERROR
+0,6V
+13,7

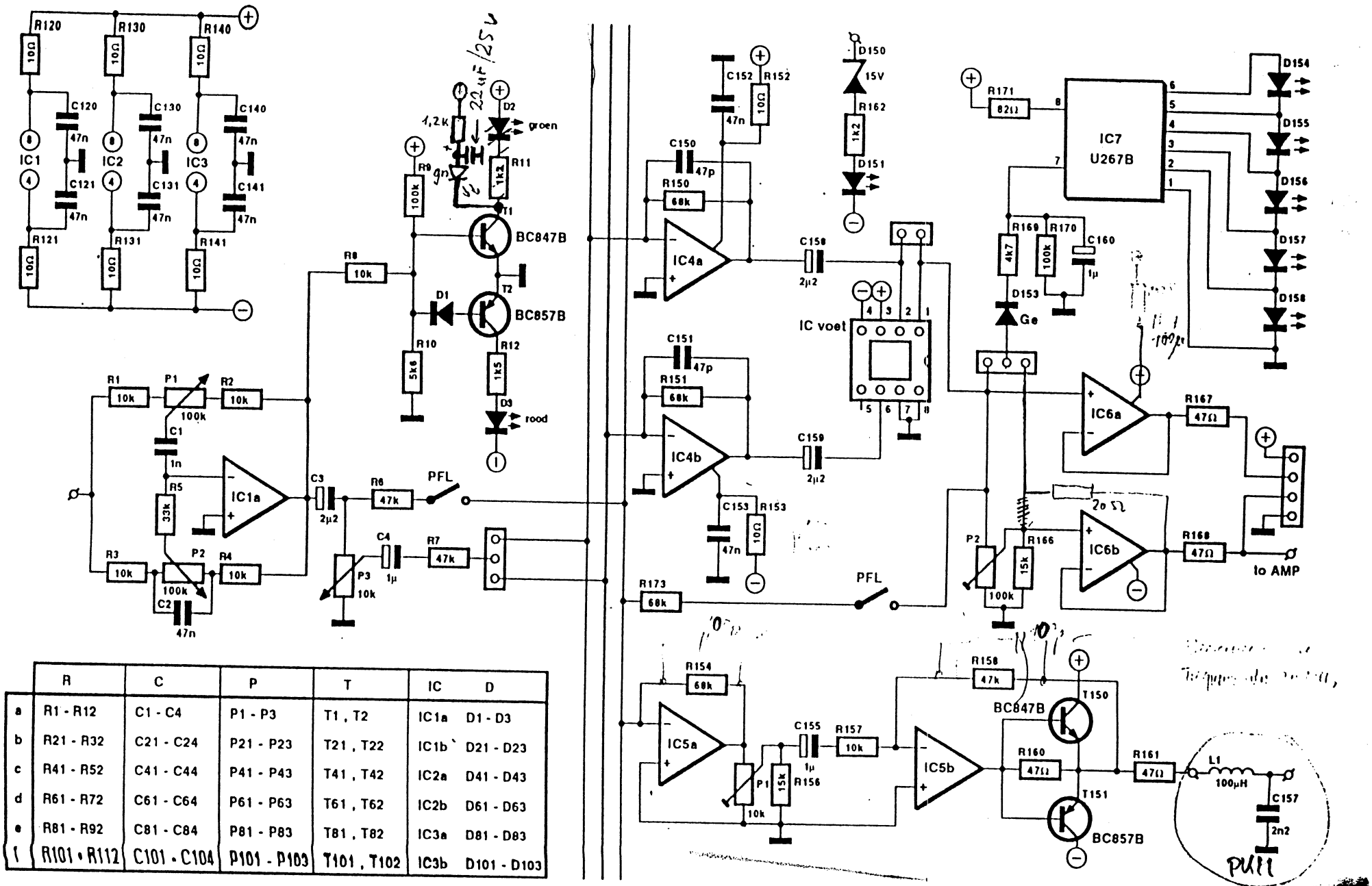

S1
Tr1
4n7 630V
4n7 630V
220V
20V 5A
20V 5A
C1 100n 63V
C2 100n 63V
F1
4A T
0
B1
C4 4700µ 40V
C5 4700µ 40V
C6 4700µ 40V
C7 4700µ 40V
D1
C3 100n 160V
K1
1 +
2 0
3 –
4 NC
5 In
6 error –
7 out (+)
8 out (–)
K3
1 0
2 4Ω
3 8Ω
4 16Ω
5 0
6 50V
7 70V
8 100V
K4
K5
K6
R10 1W6 10Ω
C10 100n 250V
R3 15k
C8 1µ
R4 100k
R5 4k7
BC857B
T1
C9 220µ 16V
R9 82Ω
T2
R8 82Ω
K2
R2 47Ω
R1 47Ω
Tr2
R6 100k
R7 100k
D2
BAS32
Re1
24V



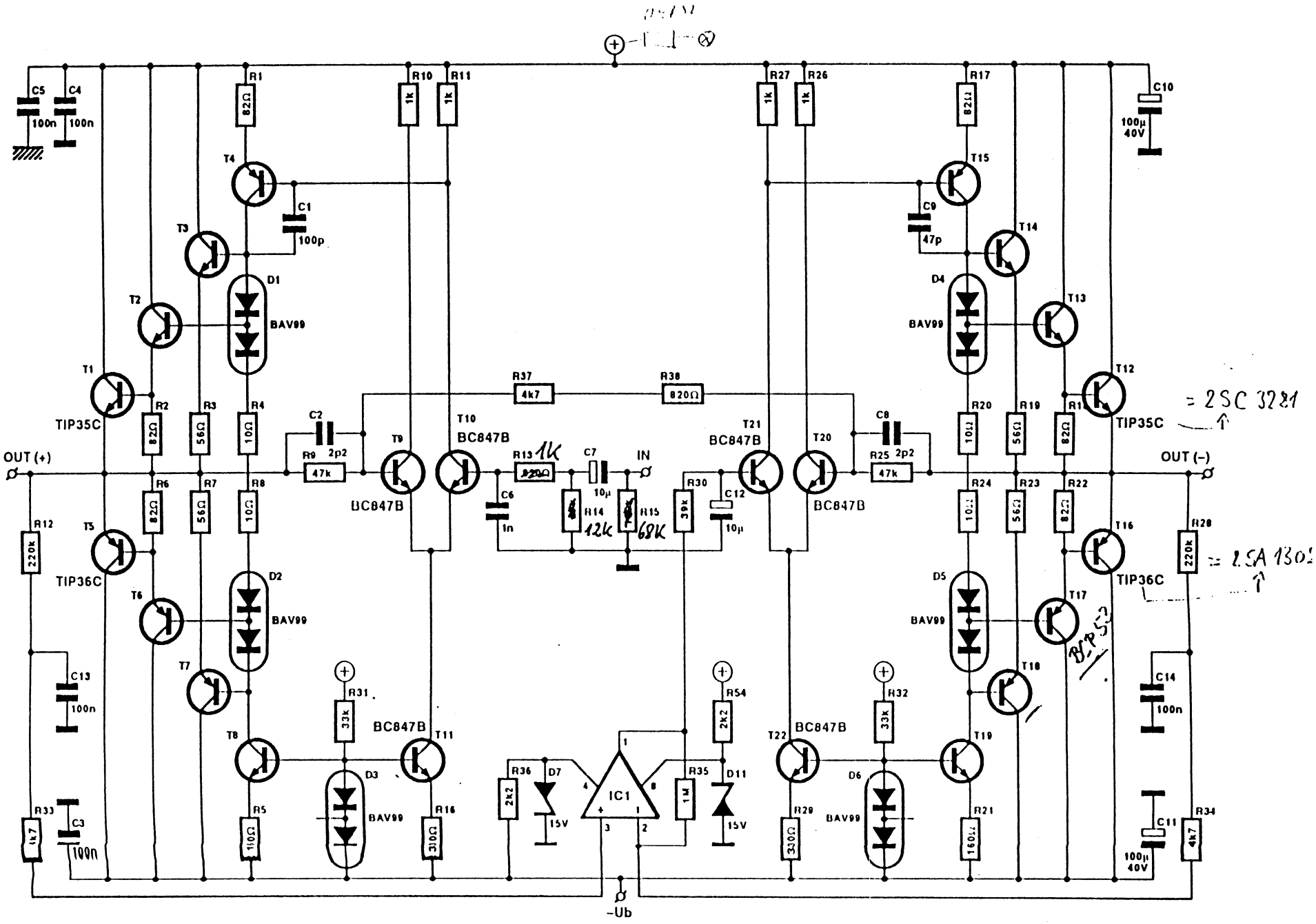


★ = metal film

	R	C	L	P	T	IC
a	R1 - R19	C1 - C14	L1 , L2	P1	T1 , T2	IC1
b	R21 - R39	C21 - C34	L21 , L22	P21	T21 , T22	IC21
c	R41 - R59	C41 - C54	L41 , L42	P41	T41 , T42	IC41
d	R61 - R79	C61 - C74	L61 , L62	P61	T61 , T62	IC61
e	R81 - R99	C81 - C94	L81 , L82	P81	T81 , T82	IC81
f	R101 - R119	C101 - C114	L101 , L102			



	R	C	P	T	IC	D
a	R1 - R12	C1 - C4	P1 - P3	T1 , T2	IC1a	D1 - D3
b	R21 - R32	C21 - C24	P21 - P23	T21 , T22	IC1b	D21 - D23
c	R41 - R52	C41 - C44	P41 - P43	T41 , T42	IC2a	D41 - D43
d	R61 - R72	C61 - C64	P61 - P63	T61 , T62	IC2b	D61 - D63
e	R81 - R92	C81 - C84	P81 - P83	T81 , T82	IC3a	D81 - D83
f	R101 - R112	C101 - C104	P101 - P103	T101 , T102	IC3b	D101 - D103


+Ub
-Ub
OUT (+)
OUT (-)
IN
C5 100n
C4 100n
C1 100p
C2 2p2
C3 100n
C6 1n
C7 10µ
C8 2p2
C9 47p
C10 100µ 40V
C11 100µ 40V
C12 10µ
C13 100n
C14 100n
R1 82Ω
R2 82Ω
R3 56Ω
R4 10Ω
R5 10Ω
R6 82Ω
R7 56Ω
R8 10Ω
R9 47k
R10 1k
R11 1k
R12 220k
R13 1k
R14 12k
R15 68k
R16 330Ω
R17 82Ω
R18 82Ω
R19 56Ω
R20 10Ω
R21 160Ω
R22 82Ω
R23 56Ω
R24 10Ω
R25 47k
R26 1k
R27 1k
R28 220k
R29 330Ω
R30 39k
R31 33k
R32 33k
R33 4k7
R34 4k7
R35 1M
R36 2k2
R37 4k7
R38 820Ω
R54 2k2
T1 TIP35C
T2
T3
T4
T5 TIP36C
T6
T7
T8
T9 BC847B
T10 BC847B
T11 BC847B
T12 TIP35C
T13
T14
T15
T16 TIP36C
T17
T18
T19
T20 BC847B
T21 BC847B
T22 BC847B
D1 BAV99
D2 BAV99
D3 BAV99
D4 BAV99
D5 BAV99
D6 BAV99
D7 15V
D11 15V
IC1
= 2SC 3281
= 2SA 1302